Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

CLAIMS

1 - 33 (canceled).

34 (original). Compounds 6a-d herein.

35 (original). Compounds 7a-d herein.

36 (original). Compounds 8a-d herein.

37 (original). Compounds 4a-d herein where R^1 and $R^2 \neq H$.

38 (original). Compounds 5a-d herein where R^1 and $R^2 \neq H$.

39 (original). Compounds 6a-d herein where R^1 and $R^2 \neq H$.

40 (original). Compounds 7a-d herein where R^1 and $R^2 \neq H$.

41 (original). Compounds 8a-d herein where R^1 and $R^2 \neq H$.

42 (original). Compounds 10 herein or compounds 10 where R^1 and $R^2 \neq H$.

43 (original). Compounds 11-14, 16-19, 21-22, 23(a-d), 25(a-d), 26-34, 35(a-c), 36-38 and 43-46 or compounds 11-14, 16-19, 21-22, 23(a-d), 25(a-d), 26-34, 35(a-c), 36-38 and 43-46 where R^1 and $R^2 \neq H$.

44 (original). A process for the preparation of compounds 4a-d herein comprising the reaction of imines 3a-d herein with an allyl boron reagent to provide compounds 4a-d.

45 (original). A process as claimed in Claim 44 wherein imines 3a-d are prepared by condensation of amino acid aldehydes 1 herein and amines 2a-d herein.

46 (original). A process as claimed in Claim 44 wherein addition of formaldehyde solution to compounds 4a-d provides imidazolidines 5a-d herein.

47 (original). A process as claimed in Claim 46 wherein compounds 6a-d herein are obtained by oxidation of imidazolidines 5a-d.

48 (original). A process as claimed in Claim 46 wherein imidazolidines 5a-d are dihydroxylated to provide compounds 7a-d herein.

49 (original). A process as claimed in Claim 46 wherein aldehydes 8a-d herein are obtained by ozonolysis of imidazolidines 5a-d.

50 (original). A process as claimed in Claim 48 wherein aldehydes 8a-d are obtained by oxidation of compounds 7a-d.

51 (original). A process as claimed in Claim 47 wherein compounds 6a-d are reduced to form aldehydes 8a-d.

52 (original). A process as claimed in Claim 50 wherein aldehydes 8a-d are oxidised to provide carboxylic acids 6a-d.

53 (original). A process as claimed in Claim 50 wherein aldehydes 8a are subjected to reductive amination with compounds 9 herein to provide amines 10 herein.

54 (original). A process as claimed in Claim 53 wherein amines 10 are subjected to removal of group Pg^C to provide compounds 11 herein.

55 (original). A process as claimed in Claim 54 wherein compounds 11 are subjected to cyclisation to provide compounds 12 herein.

56 (original). A process as claimed in Claim 55 wherein mimetics I(i) herein are produced by hydrogenation of compounds 12.

57 (original). A process as claimed in Claim 55 wherein mimetics I(i) herein are produced by acid hydrolysis of compounds 12.

58 (original). A process as claimed in Claim 47 wherein mimetics I(ii) are obtained by:-

(i) removal of group $Pg^{N'}$ from compounds 6b to provide compounds 13 herein;

(ii) cyclization of compounds 13 to provide compounds 14 herein; and

(iii) deprotection of the imidazolidine group in cmpounds 14.

59 (original). A process as claimed in Claim 53 wherein amines 10 are reacted with compounds 15 herein in the presence of base to provide compounds 16 herein, whereby groups $Pg^{N'}$ and $Pg^{C'}$ are subsequently removed to provide compounds 17 herein which, after cyclisation and hydrogenation, provide mimetics II(i) herein.

60 (original). A process as claimed in Claim 47 wherein compounds 6c have the group $Pg^{N'}$ removed to provide compounds 18 herein which are converted to compounds 19 herein which by deprotection of the imidazilidine group are converted to mimetics II(i) herein.

61 (original). A process as claimed in Claim 47 wherein compounds 6a are reacted with compounds 20 herein to preovide compounds 21 herein which, after removal of groups $Pg^{N'}$ and $Pg^{C'}$ are converted to compounds 22 herein which are subsequently converted to compounds 19 which by deprotection of the imidazilidine group are converted to mimetics II(ii) herein.

62 (original). A process as claimed in Claim 46 wherein compounds 5a-d are converted to compounds 23a-d herein by hydroboration whereafter compounds 23a-d are oxidized to compounds 24a-d herein whereafter compounds 24a are subjected to reductive amination with compounds 9 to provide compounds 26 herein which are subsequently converted to mimetics II(iii) herein.

63 (original). A process as claimed in Claim 46 wherein compounds 5a-d are converted to compounds 23a-d herein by hydroboration whereafter compounds 23a-d are oxidized to form compounds 25a-d herein and subsequently compounds 25a of 25c are converted to mimetics II(iv) herein.

64 (original). A process as claimed in Claim 53 wherein amines 10 are reacted with compounds 15 herein in the presence of base to provide compounds 16 herein which then have

the group $Pg^{N'}$ removed to provide compounds 27 herein which after reaction with compound $Pg^{N'}NHCH(R)COOH$ are converted to compounds 28 herein which are subsequntly converted to mimetics II(i) herein.

65 (original). A process as claimed in Claim 48 wherein compounds 7a are dehydrated to provide compounds 29 herein which are then converted to compounds 30 herein whereafter compounds 30 by reaction with compound $Pg^{N'}NHCH(R)COOH$ form compounds 31 which are then oxidised to form compounds 32 herein which after removal of groups $Pg^{N'}$ and $Pg^{C'}$ and reductive amination are converted to compounds 33 herein which are subsequently converted to compounds 34 herein which by deprotection of the imidazolidine group are converted to mimetics IV(i) herein.

66 (previously presented). A process as claimed in Claim 46 wherein compounds 5a, c or 7a, c are oxidised to form compounds 35a, c herein whereafter compounds 35c are subjected to reductive amination to form compounds 36 herein which after removal of the group PgN' are converted to compounds 37 herein whereafter mimetics IV(ii) are produced by deprotection of the imidazolidine group.

67 (previously presented). A process as claimed in Claim 46 wherein compounds 5a, c or 7a, c are oxidised to form compounds 35a, c herein whereafter compounds 35a are reacted with compounds 2b herein to form compounds 38 which after removal of the groups $Pg^{N'}$ and $Pg^{C'}$ are cyclised to compounds 37 which by deprotection of the imidazolidine group are converted to mimetics IV(ii)

68 (original). A process as claimed in Claim 57 wherein mimetics i(i) wherein R^1 is an alkylated aspartate or an alkylated glutamate side chain which correspond to compounds 43 and 45 herein respectively, which subsequently have the group PgC' removed and cyclized to provide

compounds 44 and 46 respectively which are subsequently cyclised to mimetics V and VI respectively.

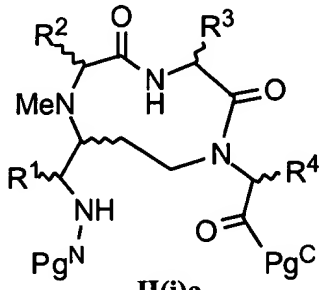
69 - 70 (canceled).

71 (original). A process as claimed in Claim 69 wherein compounds 54 after removal of $Pg^{N'}$ are converted to compounds 10 herein wherein R^1, M, M' and M" are H.

72 (original). A process for making mimetics I(i)a herein stereospecifically wherein compounds 49 herein are reacted with vinyl magnesium bromide to compounds 50 herein which are then reacted with compounds 9 herein to form compounds 51 herein which are then reacted with compounds 15 herein wherein $Pg^{N'}$ is Cbz to form compounds 53 herein which are then converted to mimetics I(i)a by hydrogenation. (Method only suitable for mimetics I(i)a having R^1 = H.)

73- 94 (canceled)

95 (previously presented). Compounds II(i)a having the structure:

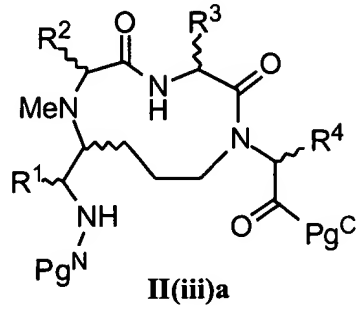


II(i)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

96 (previously presented). Compounds II(i)a as claimed in Claim 95 where R_1 and $R_2 \neq$ H.

97 (previously presented). Compounds II(iii)a having the structure:



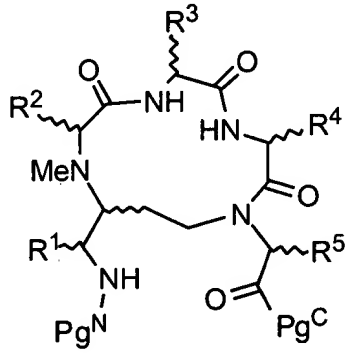
II(iii)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

E1

98 (previously presented). Compounds II(iii)a as claimed in Claim 97 where R_1 and $R_2 \neq$ H.

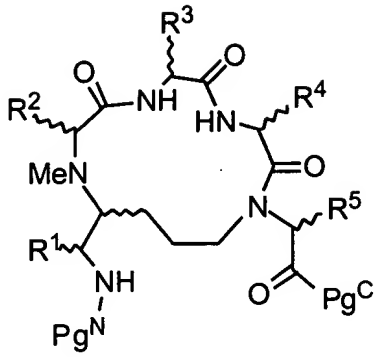
99 (previously presented). Compounds III(i)a having the structure:



III(i)a

wherein R_1, R_2, R_3, R_4 and R^5 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

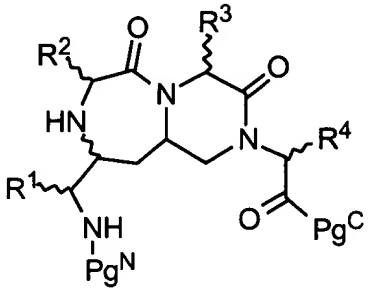
100 (previously presented). Compounds III(iii)a having the structure:



III(iii)a

wherein R^1, R^2, R^3, R^4 and R^5 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

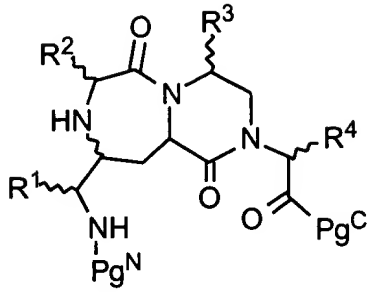
101 (previously presented). Compounds IV(i)a having the structure:



IV(i)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

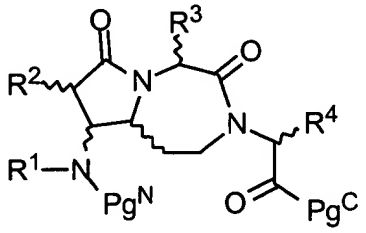
102 (previously presented). Compounds IV(ii)a having the structure:



IV(ii)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

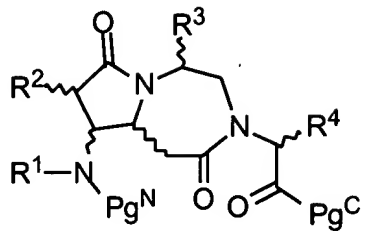
103 (previously presented). Compounds V(i)a having the structure:



V(i)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

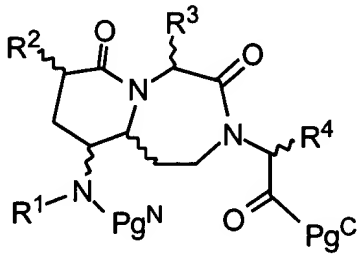
104 (previously presented). Compounds V(ii)a having the structure:



V(ii)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

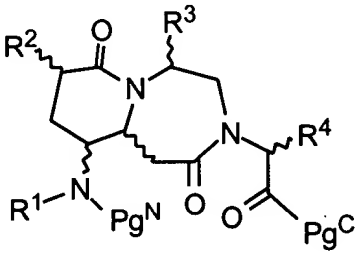
105 (previously presented). Compounds VI(i)a having the structure:



VI(i)a

wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

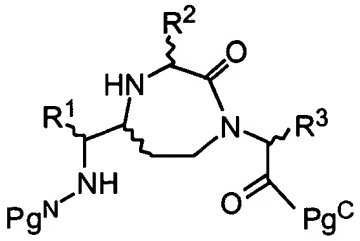
106 (previously presented). Compounds VI(ii)a having the structure:



VI(ii)a

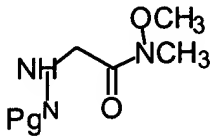
wherein R_1, R_2 R_3 and R^4 are amino acid side chain groups, Pg^N is a protecting group for amino, Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof.

107 (previously presented). A process for making mimetics I(i)a having the structure:

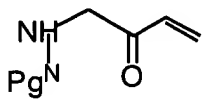


I(i)a

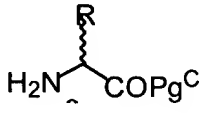
wherein R^1, R^2 and R^3 are amino acid side chain groups, Pg^N is a protecting group for amino and Pg^C is a protecting group for carboxylic acid and ∿ indicates a bond at a chiral center of the structure which centre may be in the R or S configuration or a mixture thereof wherein compounds having the structure:



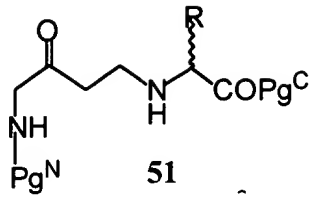
are reacted with vinyl magnesium bromide to form compounds having the structure:



which are then reacted with compounds having the structure:

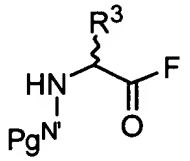


to form compounds having the structure:

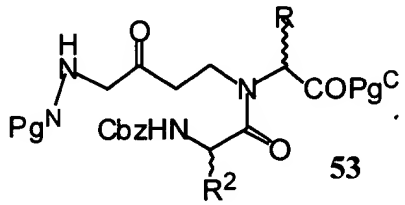


51

which are then reacted with compounds having the structure:



wherein PgN^I is Cbz to form compounds having the structure:

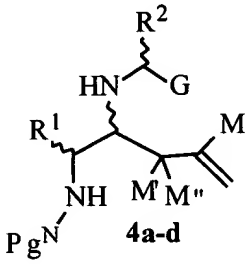


53

which are then converted to mimetics I(i)a by hydrogenation.

108 (previously presented). A library of peptide mimetics comprising at least one mimetic from Claim 113.

109 (not entered). Compounds 4a-d having the structure

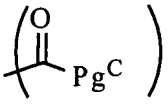


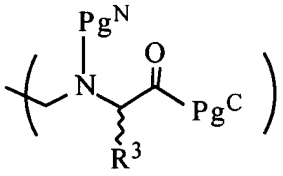
4a-d

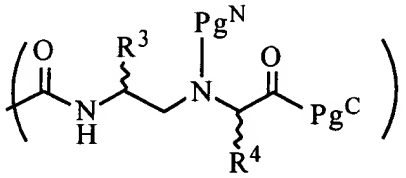
wherein R^1 and R^2 are amino acid side chain groups, P_g^N is a protecting group for amino, M, M' and M'' are the same or different and are selected from the group consisting of hydrogen, C_1-C_4

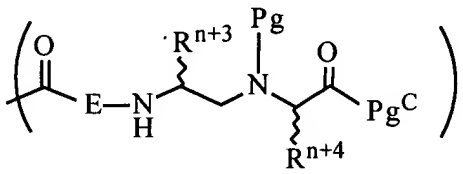
alkyl, chloro and C_1-C_4 alkoxy and ∿ indicates a bond at a chiral centre of the structure which centre may be in the R or S configuration or a mixture thereof and G is selected from the

group consisting of:

a: 

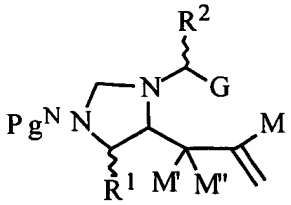
b: 

c: 



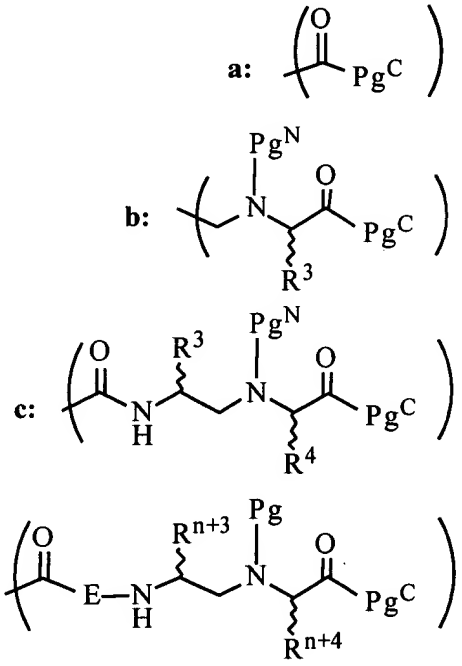
wherein R^3 is an amino acid side chain group, $P_g{}^C$ is a carboxyl protecting group and E is -$(AA)_n$- where $_n$ is 1 to about 300 and AA is an amino acid residue.

110 (not entered). Compounds 5a-d having the structure



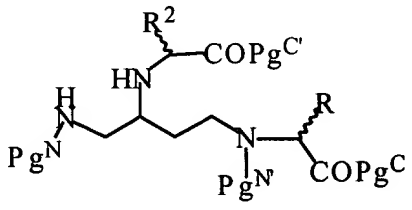
wherein R^1 and R^2 are amino acid side chain groups, P_g^N is a protecting group for amino, M, M' and M'' are the same or different and are selected from the group consisting of hydrogen, C_1-C_4 alkyl, chloro and C_1-C_4 alkoxy, ∿ indicates a bond at a chiral centre of the structure which centre may be in the R or S configuration or a mixture thereof and G is selected from the

group consisting of

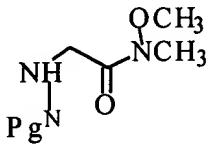


wherein R3 is an amino acid side chain group, PgC is a carboxyl protecting group and E is -(AA)n- where n is 1 to about 300 and AA is an amino acid residue.

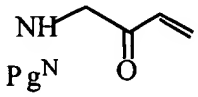
111 (not entered). A process for making compounds of the structure 54



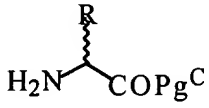
wherein R and R2 are amino acid side chain groups, PgN and PgN' are protecting groups for amino which may be the same or different, PgC and PgC' are protecting groups for carboxyl which may be the same or different and ∿ indicates a bond at a chiral centre of the structure which centre may be in the R or S configuration or a mixture thereof wherein compound 49 having the structure



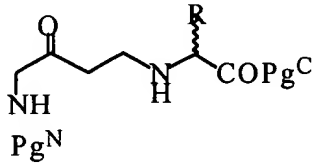
is reacted with vinyl magnesium bromide to form the compound 50 having the structure



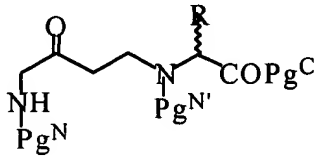
which is then reacted with compound 9 having the structure



to form compound 51 having the structure

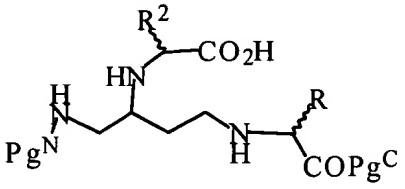


wherein the amino is subsequently protected to form the compound 52



which compound is then reacted with compound 9 to form compounds 54 above.

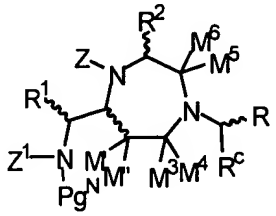
112 (not entered). A process as claimed in claim 111 wherein compounds 54 are converted to compounds 55 having the structure

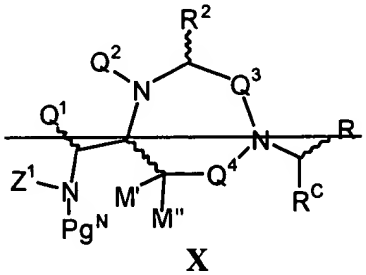


El

after removal of groups $P_g^{N'}$ and $P_g^{C'}$ whereafter compounds 55 are converted to mimetics I(i)a referred to above in claim 91 wherein Z and R^1 is H.

113 (currently amended): A general mimetic of the structure





X

wherein:

~~~ indicates a bond at a chiral centre of the structure which centre may be in the R or S configuration or a mixture thereof;

R, R^1 and R^2 ~~is an~~ are amino acid side chain groups which may be the same or different;

M' and M" may be the same or different and are selected from the group consisting of hydrogen, C_1-C_4 alkyl, chloro and C_1-C_4 alkoxy;

M^3, M^4, M^5 and M^6 define a lactam as follows:

(i) M^3, M^4 when taken together with the ring carbon to which they are attached form a carbonyl group, M^5 and M^6 = H, or

(ii) M^3 is H and M^4 = M', M^5 and M^6 when taken together with the carbon atom to which they are attached form a carbonyl group;

Z' is selected from the group consisting of hydrogen, methyl and part of a cyclic amino acid sidechain joined to ~~Q^1~~-R^1;

Pg^N is a protecting group for amine;

R^C is selected from the group consisting of a carboxy terminal part of the mimetic, hydrogen, R, and CH_2R; and

~~$Q^1 = R^1$ which has the same definition as R and R^2 above and $Q^2 = Z$ where~~ Z is selected from the group consisting of hydrogen, methyl, ethyl, formyl and acetyl, -CH_2R, and C(O)R ~~or alternatively Z is part of a cyclic amino acid sidechain group joined to R^2; or Q^1 and Q^2 taken together represent a cyclic group;~~
~~~

~~Q^3 is selected from the group consisting of C(O) and CH_2, $C(O)N(Q^5)CH(R)C(O)$, $C(O)N(Q^5)CH(R)CH_2$ wherein Q^5 is a covalent bond from the Q^4 group to the nitrogen atom in Q^3 to form a bicyclic ring system;~~

~~Q^4 is selected from the group consisting of CH(M'), C(O), $CH(Q^5)CH_2$ and $CH(Q^5)C(O)$;~~

~~with the provisos that when:~~

~~(i) Q^3 is C(O), then Q^4 = CH(M');~~

~~(ii) Q^3 is CH_2, then Q^4 = C(O);~~

~~(iii) Q^3 is $C(O)N(Q^5)CH(R)C(O)$, then Q^4 = $CH(Q^5)CH_2$;~~

~~(iv) Q^3 is $C(O)N(Q^5)CH(R)CH_2$, then Q^4 = $CH(Q^5)C(O)$;~~

~~where Q^5 is a covalent bond from the Q^4 group to the nitrogen atom in Q^3 which is a cyclization forming a bicyclic ring system~~.

114. (previously presented) A peptide mimetic as claimed in claim 113 wherein when Q^1 and Q^2 form a cyclic group Q^1Q^2 which is selected from the group consisting of -$CH(R)C(O)$-, -$CH_2CH(R)C(O)$-, -$CH_2CH_2CH(R)C(O)$-, -$CH(R)CH_2$-, -$CH_2CH(R)CH_2$-, -$CH_2CH_2CH(R)CH_2$-, -$CH_2CH(R)$-, -$CH_2CH_2CH(R)$-, -$CH(R)CH_2CH_2$-, -$CH_2CH(R)CH_2CH_2$-, -$CH(R)CH_2C(O)$- and -$CH_2CH(R)CH_2C(O)$-.

115. (canceled).

116. (previously presented) A peptide mimetic as claimed in Claim 113 wherein Q^1 is R, Q^2 is Z, Q^3 is -$C(O)N(Q^5)CH(R)C(O)$- or -$C(O)N(Q^5)CH(R)CH_2$-.

117. (previously presented) A peptide mimetic as claimed in Claim 113 wherein Q^1 is $CH(R)C(O)Q^2$, Q^1Q^2- forms a cyclic group -$CH(R)C(O)$-Q^2, Q^3 is C(O) or CH_2.

118. (previously presented) A peptide mimetic as claimed in Claim 113 wherein Q^1 is $CH_2CH(R)C(O)Q^2$, Q^1Q^2- forms a cyclic group $-CH_2CH(R)C(O)-$, Q^3 is C(O) or CH_2.

119. (previously presented) A peptide mimetic as claimed in Claim 113 wherein R^C is $C(O)Pg^C$ where Pg^C is a protecting group for carboxylic acid.

120. (previously presented) A peptide mimetic as claimed in Claim 119 wherein Pg^C is selected from the group consisting of alkoxy, benzyloxy, allyloxy, fluorenylmethyloxy, amines forming easily removable amides, a cleavable linker to a solid support, the solid support, hydroxy, NHR, OR, R or the remaining C-terminal portion of the mimetic.

121. (previously presented) A peptide mimetic as claimed in Claim 113 wherein Pg^N is selected from a group consisting of Boc, Cbz, Alloc, trityl, a cleavable linker to a solid support, the solid support, the solid support, hydrogen, R, C(O)R or part of the remaining N-terminal portion of the mimetic.

122. (previously presented) A peptide mimetic as claimed in Claim 113 wherein M' or M" is methoxy.

123. (previously presented) A peptide mimetic as claimed in Claim 113 wherein M' or M" is methyl.

124. (currently amended) A peptide mimetic as claimed in Claim 113 wherein ~~Q^1 is R^1, Q^2-~~Z is hydrogen, ~~Q^3 is C(O), Z^1 = H~~ is hydrogen and R^C is $C(O)Pg^C$.

125. (previously presented) A peptide mimetic as claimed in Claim 124 where R^1 and $R^2 \neq H$.

126. (currently amended) A peptide mimetic as claimed in Claim 113 wherein ~~Q^1 is R^1, Q^2~~ Z is hydrogen, ~~Q^3 is CH_2~~ M^5 and M^6 = H, Z^1=H and R^C is $C(O)Pg^C$.

127. (previously presented) A peptide mimetic as claimed in Claim 126 where R^1 and $R^2 \neq H$.

128. (previously presented) A peptide mimetic as claimed in Claim 113 wherein Q^1 is R^1, Q^2 is hydrogen, Q^3 is $-C(O)N(Q^5)CH(R)C(O)-$, Z^1=H and R^C is $C(O)Pg^C$.

129. (previously presented) A peptide mimetic as claimed in Claim 113 wherein Q^1 is R^1, Q^2 is hydrogen, Q^3 is $-C(O)N(Q^5)CH(R)CH_2-$, Z^1=H and R^C is $C(O)Pg^C$.

130. (previously presented) A peptide mimetic as claimed in Claim 114 wherein Q^1Q^2 is $-CH(R^2)C(O)-$, Q^3 is C(O), $Z^1=R^1$ and R^C is $C(O)Pg^C$.

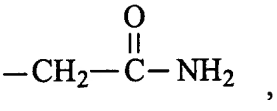
131. (previously presented) A peptide mimetic as claimed in Claim 114 wherein Q^1Q^2 is $-CH(R^2)C(O)-$, Q^3 is CH_2, $Z^1=R^1$ and R^C is $C(O)Pg^C$.

132. (previously presented) A peptide mimetic as claimed in Claim 114 wherein Q^1Q^2 is $-CH_2CH(R^2)C(O)-$, Q^3 is C(O), $Z^1=R^1$ and R^C is $C(O)Pg^C$.

133. (previously presented) A peptide mimetic as claimed in Claim 114 wherein Q^1Q^2 is $-CH_2CH(R^2)C(O)-$, Q^3 is CH_2, $Z^1=R^1$ and R^C is $C(O)Pg^C$.

134.(new) A peptide mimetic according to claim 113 wherein R, R^1 and R^2 are each independently selected from the group consisting of

(i) $-CH_3$,

(ii)  ,

(iii) -CH_2SH,

(iv) -CH_2CH_2-C(O)NH_2,

(v) -H,

(vi) -$CH(CH_3)CH_2CH_3$,

(vii) -CH_2-$CH(CH_3)_2$,

(viii) -CH_2CH_2S-CH_3,

(ix) -CH_2Ph,

(x) -CH_2OH,

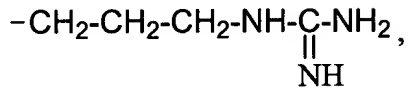
(xi) -$CH(OH)CH_3$,

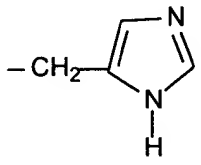
(xii) -CH_2-(3-indolyl)

(xiii) -CH_2-Ph-OH,

(xiv) -$CH(CH_3)_2$,

(xv) -CH_2CO_2H,

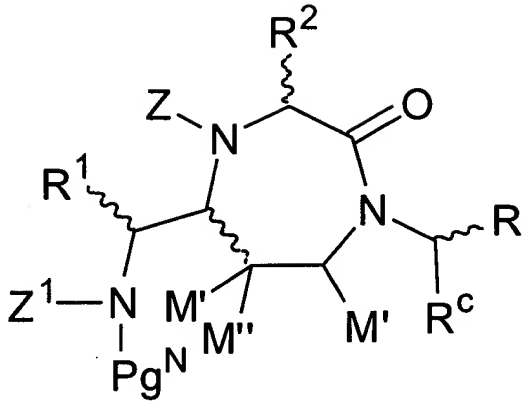
(xvi)  ,

(xvii)  , and

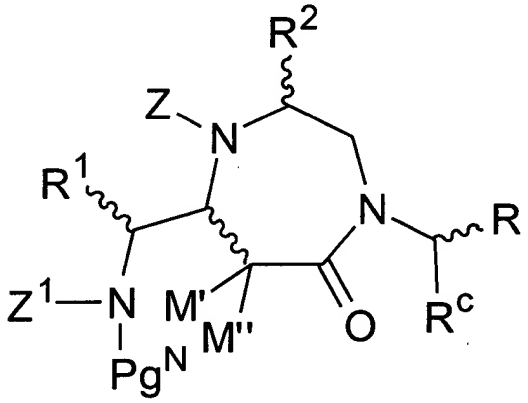
(xix) -CH_2-CH_2-CH_2-CH_2-NH_2.

(xx) -$CH_2CH_2CO_2H$.

135.(new) A mimetic according to claim 113 having the structure:



136. (new) A mimetic according to claim 113 having the structure:



137.(new) A peptide mimetic as claimed in claim 135 wherein M', M" are H.

138.(new) A peptide mimetic as claimed in claim 135 wherein Z, Z^1 are H.

139.(new) A peptide mimetic as claimed in claim 135 wherein R^1 and $R^2 \neq H$.

140.(new) A peptide mimetic as claimed in claim 135 wherein R^C is $C(O)Pg^C$ where Pg^C is a protecting group for carboxylic acid.

141.(new) A peptide mimetic as claimed in claim 136 wherein M', M" are H.

142.(new) A peptide mimetic as claimed in claim 136 wherein Z, Z^1 are H.

143. (new) A peptide mimetic as claimed in claim 136 wherein R^1 and $R^2 \neq H$.

144.(new) A peptide mimetic as claimed in claim 136 wherein R^C is $C(O)Pg^C$ where Pg^C is a protecting group for carboxylic acid.